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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Applicant	:	J. Estrada, et al.
Serial No.	:	09/473,098
Filed	:	28 Dec 1999
Group No.	:	2132
Examiner	:	Kyung H. Shin
Docket	:	LOT919990047US1
For	:	System and Method for Independent Room Security Management

Commissioner For Patents
P. O. Box 1450
Alexandria, VA 22313-1450

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on 4 May 2007
(date)

Judith A. Beckstrand

Judith A. Beckstrand

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Fees pursuant to the Consolidated Appropriations Act, 2005 (H.R. 4818).

FEE TRANSMITTAL
For FY 2006

☐ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT	($)	500.00

Complete if Known	
Application Number	09/473,098
Filing Date	28 Dec 1999
First Named Inventor	Julio Estrada
Examiner Name	Kyung H. Shin
Art Unit	2143
Attorney Docket No.	LOT919990047US1

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☑ Deposit Account Deposit Account Number: 12-2158 Deposit Account Name: IBM Corporation

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FEE CALCULATION

1. BASIC FILING, SEARCH, AND EXAMINATION FEES

Application Type	FILING FEES Fee ($)	FILING FEES Small Entity Fee ($)	SEARCH FEES Fee ($)	SEARCH FEES Small Entity Fee ($)	EXAMINATION FEES Fee ($)	EXAMINATION FEES Small Entity Fee ($)	Fees Paid ($)
Utility	300	150	500	250	200	100	
Design	200	100	100	50	130	65	
Plant	200	100	300	150	160	80	
Reissue	300	150	500	250	600	300	
Provisional	200	100	0	0	0	0	

2. EXCESS CLAIM FEES

Fee Description	Fee ($)	Small Entity Fee ($)
Each claim over 20 (including Reissues)	50	25
Each independent claim over 3 (including Reissues)	200	100
Multiple dependent claims	360	180

Total Claims	Extra Claims	Fee ($)	Fee Paid ($)
____ - 20 or HP =	____	x ____	= ____

HP = highest number of total claims paid for, if greater than 20.

Indep. Claims	Extra Claims	Fee ($)	Fee Paid ($)
____ - 3 or HP =	____	x ____	= ____

HP = highest number of independent claims paid for, if greater than 3.

Multiple Dependent Claims Fee ($)	Multiple Dependent Claims Fee Paid ($)
____	____

3. APPLICATION SIZE FEE

If the specification and drawings exceed 100 sheets of paper (excluding electronically filed sequence or computer listings under 37 CFR 1.52(e)), the application size fee due is $250 ($125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

Total Sheets	Extra Sheets	Number of each additional 50 or fraction thereof	Fee ($)	Fee Paid ($)
____ - 100 =	____	/ 50 = ____ (round up to a whole number)	x ____	= ____

4. OTHER FEE(S)

	Fees Paid ($)
Non-English Specification, $130 fee (no small entity discount)	
Other (e.g., late filing surcharge): Filing a brief in support of appeal	500.00

SUBMITTED BY

Signature	Shelley M Beckstrand	Registration No. (Attorney/Agent) 24,886	Telephone 276-238-1972
Name (Print/Type)	Shelley M Beckstrand		Date 4 May 2007

This collection of information is required by 37 CFR 1.136. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 30 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

Total Number of Pages in This Submission: 46

Application Number	09/473,098
Filing Date	12/28/99
First Named Inventor	Julio Estrada
Art Unit	2143
Examiner Name	Kyung H. Shin
Attorney Docket Number	LOT919990047US1

ENCLOSURES *(Check all that apply)*

- [X] Fee Transmittal Form
- [ ] Fee Attached
- [ ] Amendment/Reply
- [ ] After Final
- [ ] Affidavits/declaration(s)
- [ ] Extension of Time Request
- [ ] Express Abandonment Request
- [ ] Information Disclosure Statement
- [ ] Certified Copy of Priority Document(s)
- [ ] Reply to Missing Parts/ Incomplete Application
- [ ] Reply to Missing Parts under 37 CFR 1.52 or 1.53
- [ ] Drawing(s)
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- [ ] Petition
- [ ] Petition to Convert to a Provisional Application
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- [X] Appeal Communication to TC **(Appeal Notice, Brief, Reply Brief)**
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Remarks

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm Name	Shelley M Beckstrand, Patent Attorney		
Signature	Shelley M Beckstrand		
Printed name	Shelley M Beckstrand		
Date	4 May 2007	Reg. No.	24,886

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OIPE IAP17 MAY 07 2007 PATENT & TRADEMARK OFFICE

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Julio Estrada, et al.

Application No.: 09/473,098 Art Unit: 2143

Filed: 28 Dec 1999 Examiner: Kyung H. Shin

For: System and Method for Independent Room Security Management

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Commissioner for Patents

P. O. Box 1450

Alexandria, VA 22313-1450

ATTENTION: Board of Patent Appeals and Interferences

APPEAL BRIEF (37 C.F.R. § 41.37)

This brief is in furtherance of the Notice of Appeal, filed in this case on 10 Feb 2007.

The fees required under 37 C.F.R. §41.20(B)(2), and any required petition for extension of time for filing this brief and fees therefor, are dealt with in the accompanying TRANSMITTAL OF APPEAL BRIEF.

CERTIFICATE OF MAILING (37 C.F.R. § 1.8(A))

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Name: Judith A. Beckstrand

Date: _____ Signature: _____

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This brief contains these items under the following headings, and in the order set forth below:

37 C.F.R. 41.37c(1)

(i)	REAL PARTY IN INTEREST
(ii)	RELATED APPEALS AND INTERFERENCES
(iii)	STATUS OF CLAIMS
(iv)	STATUS OF AMENDMENTS
(v)	SUMMARY OF CLAIMED SUBJECT MATTER
(vi)	GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL
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(viii)	APPENDIX OF CLAIMS INVOLVED IN THE APPEAL
(ix)	EVIDENCE APPENDIX
(x)	RELATED PROCEEDINGS APPENDIX

The final page of this brief bears the practitioner's signature.

(3) REAL PARTY IN INTEREST

The real party in interest in this appeal is International Business Machines Corporation, Armonk, New York.

(4) RELATED APPEALS AND INTERFERENCES

No appeals or interferences will directly affect, or be directly affected by, or have a bearing on the Board's decision in this appeal.

(5) STATUS OF CLAIMS

A. TOTAL NUMBER OF CLAIMS IN APPLICATION

Claims in the application are: 1-15

B. STATUS OF ALL THE CLAIMS

1. Claims canceled: 8, 11, 12, 14

2. Claims withdrawn from onsideration but not canceled: None

3. Claims pending: 1-7, 9-10, 13, 15

4. Claims allowed: None

5. Claims rejected: 1-7, 9-10, 13, 15

C. CLAIMS ON APPEAL

The claims on appeal are: 1-7, 9-10, 13, 15

(6) STATUS OF AMENDMENTS

The status of any amendment filed subsequent to the final rejection is, insofar as understood by appellant, as follows:

No amendment has been filed subsequent to the final rejection, dated 10 Oct 2006.

(7) SUMMARY OF CLAIMED SUBJECT MATTER

In general, with reference to applicant's Figures 6, 10 and 11, applicant's invention as set forth in claims 3-7, 9, 13 and 15 is directed to controlling access to rooms in collaboration space. The rooms include a place (or root room 201) and a plurality of additional rooms 202, 203, 204, 210 (these are subrooms, with each subroom also being a place in collaboration space) linked in a hierarchical

structure by a double linked construct (forward pointers 205, 209 and reverse pointers 206, 207, 208, and 211), with access control on the root room, or place, 201, on each subroom 202, 203, 204, 210, and on the forward pointers 209 (Fig. 11, readers field 214) between them which, in combination, support increased, decreased, and maintained (the same) access to a subroom 210 as that allowed on its parent room 204, and that access at any level of authority to a subroom 202, 203, 204, 210 is enabled only for those authorized to access the root room 201, together with a third access control 214 provided on forward pointers 209 to control whether the link to a child room 210 will be enabled at its parent room 204 for a specific user 215. When displaying a parent room 201, 204 to a user, the only child room links displayed are those for which that user is identified in the readers field 214 on forward pointers 205, 209.

For claim 1, applicant's invention is directed to a collaboration space (Figure 8, 191; Figure 10) created as a web site (Page 55, lines 6-15) by a user at a browser (Figure 6, 101) including a plurality of rooms (Figure 10, 201, 202, 203, 204, 210; page 48, lines 2-5) in a hierarchical structure (page 19, lines 16-17) with access control list (page 52, lines 4-6; page 55, lines 2-9) control on rooms (201, 202, 203, 204, 210) and access control list (Figure 11, 214) control on forward pointers (Figures 10 and 11, 209) to child rooms (Figure 10, 210), comprising:

said web site (105-108; page 6, lines 1-9; page 30, lines 1-11) including a place comprising a plurality of subrooms, each subroom being an independent entity belonging to said place (Figure 7, 172; page 52, lines 14-18),

said place (191) having a first data note (members 195 for main room 201) including a directory of members (195) of said place and

each subroom (202, 203, 204, 210) within said place having a data note (195, for subrooms 202, etc.) associated therewith containing an access control list of members (195) selected exclusively from said directory of members (195, for main room 201) by a member of said place having manager authority with respect to said subroom for specifying users of said place authorized to access said subroom (page 48, line 2 to page 49, line 1);

forward (Figure 10, 205, 209) and reverse pointers (Figure 10, 206, 207, 208, 211) for linking said subrooms, each said forward pointer (Figure 11, 209) to a child room (210) including indicia (212) identifying said child room, indicia (213) specifying the address location of the entity forming said child room, and a readers field (214) for providing access control list (215, 216) control on said forward pointer (209) (page

49, line 19 to page 50, line 9);

said readers field (214) being a members object (Figure 8, 195) for identifying those members of said subset of members of said place authorized to access a parent subroom (204) that are also authorized to access a child subroom (210) and for each member of said subset of members a level (216) of authorization;

a document readers field for a document containing data in said subroom being a members object for identifying a subset of members of said place authorized to access a subroom who are also authorized to access said document (page 49, lines 1-18); and

said collaboration space comprising a hierarchy of rooms (Fig. 10, 201, 202, 203, 204, 210), each room being a place (Fig. 8, 191) in collaboration space including said directory of members (195); said directory of members (195), said access control list of members (Contacts.nsf), and said readers field (214) selectively providing increased, decreased, and maintained access to a child place in collaboration space, with access at any level of authority to a child place enabled only for those authorized to access a corresponding parent place, and whether a link (209) to a child place (210) will be enabled for a specific user (215) in its corresponding parent place (204) (page 48, line 1 to page 50, line 9).

Claim 10 varies from the above in that it is directed to the creation of a child room. This includes initially providing in a readers access field (195) for a child room created from a form those users identified in a form access list identifying users authorized to read rooms (such as 202) created from that form (page 49, lines 3-9); and limiting reader access in the readers access field (195, for subroom 210) to the child room (210) for a specific user to no more than the access granted that specific user in the first access control list (195, for main room 201) (page 49, lines 9-12).

Claim 3 varies from claims 9, 13, and 15 by not specifically reciting the displaying of a parent room, which limitation is included in its dependent claim 7.

(8) GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Claims 1-7, 9-10, 13, 15 stand rejected under 35 U.S.C. 103 as obvious over Salas et al (Salas, U.S. Patent 6,233,600) in view of Maurille (U.S. Patent 6,484,196) and further in view of Cutler et al. (Cutler, U.S. Patent 5,129,083).

(9) ARGUMENT

Rejection of Claims 1-7, 9-10,13, and 15 Under 35 U.S.C. 103

Rejection of Claims 3-7, 9, 13 and 15 Under 35 U.S.C. 103

Claims 3-7, 9, 13, and 15 have been rejected under 35 U.S.C. 103(a) over Salas et al (Salas, U.S. Patent 6,233,600) in view of Maurille (U.S. Patent 6,484,196) and further in view of Cutler et al. (U.S. Patent 5,129,083).

Applicant argues that the Examiner has not satisfied the burden for establishing a prima facie case of obviousness, which requires that the Examiner provides

1. one or more references
2. that were available to the inventor and
3. that teach
4. a suggestion to combine or modify the references,
5. the combination or modification of which would appear to be sufficient to have made the claimed invention obvious to one of ordinary skill in the art.

With respect to the third element (that the references "teach"), it is not enough that the prior art references disclose all the claimed elements in isolation. Rather, as stated by the Federal Circuit, a prior art reference must disclose the elements of the claimed invention "arranged as in the claim." The Examiner, further, must identify the elements of the claims of the application, determine their meaning in light of the specification and prosecution history, and identify the corresponding elements disclosed in the reference. [See Lindermann Maschinenfabrik GmbH v. American Hoist & Derrick Co., 221 USPQ 481, 485 (Fed. Cir. 1984) This case dealt with anticipation under 35 U.S.C. 102, but the principle applies here as well]. Further, references do not teach when the prior art is lacking or missing a specific feature or structure of the claimed invention. [See Continental Can Co. USA v. Monsanto Co., 20 USPQ 2d 1746, 1748 (Fed. Cir. 1991)].

The proper approach to the obviousness issue must start with the claimed invention *as a whole*. It is true that it consists of a combination of old elements so arranged as to perform certain related functions. It is immaterial to the issue, however, that all of the elements were old in other contexts. What must be found obvious to defeat the patent is the claimed combination. [Kimberly-Clark Corp. v. Johnson & Johnson, 745 F.2d 1437, 223 USPQ 60-3, 609-10 (Fed. Cir. 1984).]

Applicant will show that several of the elements in the claims alleged by the Examiner to be taught by the references are, in fact, not taught when properly considered, and that when considered as a whole, the cited art references do not teach the claimed combination.

The fourth element of the prima facie case, the suggestion to combine, must come from the prior art. It is insufficient to establish obviousness that the separate elements of the invention existed in the prior art, absent some teaching or suggestion, in the prior art, to combine the elements. That a claimed invention may employ known principles does not itself establish that the invention would have been obvious, particularly where those principles are employed to deal with different problems. The Examiner must consider the claim as a whole, and not piece together the claimed invention using the claims as a guide. The Federal Circuit has stated: "[o]ne cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention. [See In re Fritch, 23 USPQ 2d 1780, 1784 (Fed. Cir. 1992)].

It is insufficient to establish obviousness that the separate elements of the invention existed in the prior art, absent some teaching or suggestion, in the prior art, to combine the elements. [See Arkie Lures, Inc. v. Gene Larew Tackle, Inc., 43 USPQ 2d 1294 (Fed. Cir. 1997)]. That a claimed invention may employ known principles does not itself establish that the invention would have been obvious,

particularly where those principles are employed to deal with different problems. [See Lindermann, supra.] The Examiner must consider the claim as a whole, and not piece together the claimed invention using the claims as a guide. The Federal Circuit has stated: "[o]ne cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention. [See In re Fritch, 23 USPQ 2d 1780, 1784 (Fed. Cir. 1992)].

The CCPA as stated that the prima facie case requires that the reference teachings "appear to have suggested the *claimed subject matter.*" [In re Rinehart, 531 F.2d 1048, 189 USPQ 143, 147 (C.C.P.A. 1976)] The Examiner must show why it "would appear" that the references would have been combined. Applicant argues that the motivations for combining the cited references discussed hereafter are not sufficient to meet this requirement.

"In rejecting claims under 35 U.S.C. § 103, the Examiner bears the initial burden of presenting a prima facie case of obviousness. See In re Rijckaert, 9 F.3d 1531, 1532, 28 USPQ2d 1955, 1956 (Fed. Cir. 1993). To reach a conclusion of obviousness under § 103, the Examiner must produce a factual basis supported by a teaching in a prior art reference or shown to be common knowledge of unquestionable demonstration. Such evidence is required in order to establish a prima facie case. In re Piasecki, 745 F.2d 1468, 1471-72, 223 USPQ 785, 787-88 (Fed. Cir. 1984).

The Examiner must not only identify the elements in the prior art, but also show 'some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead the individual to combine the relevant teachings of the references." In re Fine, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). (Ex parte Rao S. Chintakrindi, Thomas E. Murphy, Paul F. Rieth and Jeffrey S. Stevens, Non-binding decision of the Board of Patent Appeals and Interferences, 9/30/2003 in Appeal No. 2001-2578, Application No. 08/977,547 filed 25 Nov 1997, END919970136US1.)

"A rejection under 35 U.S.C. § 103 must be based on whether there is a teaching, motivation, or suggestion to select and combine the references based on objective evidence of record. Therefore, the Examiner must identify a reason, suggestion, or motivation which would have led an inventor to combine those references. Pro-Mold & Tool Co. v. Great Lakes Plastics, Inc., 75 F.3d 1568, 1573, 37 USPQ2d 1626, 1629, (Fed. Cir. 1996). Additionally, 'the Board must not only assure that the requisite findings are made, based on evidence of record, but must also explain the reasoning by which the findings are deemed to support the agency's conclusion.'" (Ex parte Rao S. Chintakrindi, Thomas E. Murphy, Paul F. Rieth and Jeffrey S. Stevens, Non-binding decision of the Board of Patent Appeals and Interferences, 9/30/2003 in Appeal No. 2001-2578, Application No. 08/977,547 filed 25 Nov 1997, END919970136US1.)

In order to find teachings in the art for method and structure set forth in the claims, the Examiner selects (1) Salas from the collaborative workspace technology, (2) Cutler from the ACL security technology, and (3) Maurille from the hierarchical data structure technology.

Referring to (1) collaborative workspace technology, (2) ACL security technology, and (3) hierarchical or tree data structure technology, the Examiner states:

> "Any combination of these three technologies would have been obvious to one skilled in the art in 1999." [Emphasis added. Office Action, 10/10/06, page 3.]

Applicant argues that to read these technologies on "any combination", including applicants claims, requires impermissible hindsight using applicant's own claim as a roadmap,and that is what the Examiner has done. This "any combination" statement fails to establish why these references "would appear" to have been combined.

Applicant notes the following critical distinctions from each of the references, and from their combination. These distinction further establish the conclusion that the referenced elements in the combination suggested do not teach the claim as a whole.

Salas does not teach a hierarchical arrangement of "rooms", but rather a room (eRoom 24) which has a

hierarchical arrangement of objects (pages 27, files 29, and database objects 28.) Several eRooms 22 are referenced in directory 22 from server database 20, but these are not arranged in a hierarchical structure.

Cutler does not teach, inter alia, that access at any level of authority to a subroom is enabled only for those authorized to access the root room, together with a third access control (readers field) on the forward pointer to control whether the link to a child room will be enabled in its parent room for a specific user.

While Maurille does teach forward and reverse pointers, Maurille only refers to a data schema including users, not rooms in collaboration space.

Building on these distinctions with respect to the references taken individually, applicant traverse their combination.

The Examiner states the motivation to combine the Salas, Maurille, and Cutler references at page 10 of the Office Action.

Applicants further contend that these teachings are not from a common domain such that teachings may be combined as the Examiner asserts. Typical of the Examiner's rationale, based on applicant's own disclosure and using the claims as a roadmap, for combining these references is the following:

"It would have been obvious to one of ordinary skill in the art... to modify Salas to operate a collaborative workspace for message communications between members as taught by Maurille, and to modify Salas to enable utilization of standard object oriented techniques for collaborative space processing such as pointers to objects containing access control lists (ACLs) and controlling access to objects as taught by Cutler.... to employ Maurille in order to optimize message processing and display capabilities for a networked collaborative communications environment (see Maurille col. 6, lines 13-16...), and to employ Cutler in order to efficiently enhance security by providing limited visibility of computer resources and protecting data integrity (see Cutler, col. 1,lines 47-53...).

Applicant responds specifically with respect to Maurille that the stated motivation ("in order to optimize message processing and display capabilities") is irrelevant to applicant's claimed combination and would not motivate one of ordinary skill in the art in 1999 to combine these references to achieve applicant's invention. Applicant's claims are specific to access control on subrooms in a hierarchy of rooms and subrooms within collaboration space, and not to message processing and display capabilities, and the Examiner provides no proper motivation for combing these references to achieve that result.

The above statement falls short of demonstrating that

Salas, Maurille and Cutler teach applicants claims. That is, various teachings are drawn from these references in an apparent attempt to show all of the elements of applicant's claims, yet they fail to do so at the level of specificity set forth in applicants claims, as will be more fully explained below.

Further, these references are in different fields, or domains. Specifically, Cutler refers to objects within an operating system domain, which is not the same domain as collaboration space. Maurille contains no reference to rooms in collaboration space. The generic use of access control on objects in an operating system taught by Cutler does not map, to those of ordinary skill in the art, to the specific claimed configuration of access controls on rooms and subrooms which are places within collaboration space having access control lists in each room and readers fields on forward pointers between rooms. Salas refers to an E-room, which is not the same as applicants collaboration space. The Salas E-room is a database with tables on a server, but not a plurality of E-rooms. Applicants collaboration space does not refer merely to a database on a server, but rather to a construct that has a plurality of rooms linked in such a way that a quick place (room) includes a plurality of quick places (rooms) double linked with access control on each parent place, each child place, and each forward pointer linking these places.

Applicants collaboration space comprises a root place

including a plurality of additional places (subrooms) linked by the double linked (forward and reverse pointers) construct set forth in the claims, with access control on the root place, each subroom, and on the forward pointers which, in the specific combination set forth in the claims, support increased, decreased, and maintained (the same) access to the subroom as that allowed on a parent room, and that access at any level of authority to a subroom is enabled only for those authorized to access the root room, together with a third access control provided on forward pointers to control whether the link to a child room will be enabled in its parent room for a specific user.

The Cutler reference is characterized by the Examiner as teaching "...the usage of object oriented technology utilizing access control list techniques for collaborative space management" (Office Action, page 10). Applicants agree that Cutler teaches access control on objects in an operating system domain, but traverse the suggestion that Cutler teaches such for collaborative space management. The Examiner refers (Office Action, page 12) to the following from Cutler:

> "In addition to visibility control, access to each object is controlled through an access control list which specifies the processes authorized to access the object, and the types of access that are allowed." [Cutler, Col. 2, lines 27-30.]

"Each object 822 has access control information that describes the access rights needed by a user to gain access to a resource. The object header 820 contains the access control information." [Cutler, Col 22, lines 65-67.]

"Any process, including the top level process, can cause the creation of additional processes, called subprocesses or child processes. Any process which creates another process is referred to as a parent process." [Cutler, Col. 5, lines 21-25.]

There is no teaching in Cutler, nor in Cutler in combination with Salas and Maurille, that a second access control list is provided for a subroom (each room and subroom is a separate quick place in a collaboration domain) in a hierarchy of rooms (or quick places) so as to enable increased, decreased, and maintained (the same) access to the subroom as that allowed by the access control list on the parent room, and that access at any level of authority to a subroom is enabled only for those authorized to access the root room, together with a third access control (readers field) on the forward pointer to control whether the link to a child room will be enabled in its parent room for a specific user.

In Applicants' invention, an access control list for the place in collaboration space (that is, the root place, or room) is used for management of security of all sub-rooms

within that space. That is, access (as distinguished from level of access: reader, manager, etc.) to sub-rooms within a place is limited to only those individuals listed in the access control list for the place (that is, the highest room in the hierarchy). Thus, Applicants' invention provides a restrictive control over who may become a member of the various rooms within a place (that is, to whom managers can give access to rooms within the place.) This list of people is in the place main or root room of the hierarchy of rooms. A manager or author can only add to the access control list of a room or subroom individuals who are listed in the access control list of the root room of the hierarchy. This structure is brought out in the following references from the specification.

> "Referring again to Figure 6, eight QuickPlace extensions 160 are enhancements made to the Domino web server 132 in order to support a QuickPlace application. These extensions 160 are enabled only for QuickPlace URLS; that is, they are enabled for URLs that are targeted against a particular QuickPlace. These extensions are: (1) shared design elements, (2) database linkage, (3) commands, (4) publish and draft model, (5) security and authentication, (6) forms and fields, (7) decoration model), and (8) graphics server." [Page 56, line 13 to page 57, line 1. Emphasis added.]

> "(2) Database linkage enables the grouping of a

number of databases in a hierarchical way. A place is a collection of databases, and these need to be represented in a parent child relationship. Data notes represent the hierarchy to the database. There is a data note in the parent database, and there is a data note in the child database. The use of data notes for these QuickPlace extensions as a way of representing their functionality has the benefit that there are many ways of manipulating them, whether it's with Java or forms or the Notes designer. [Specification, page 57, lines 12-21.]

"(5) The security and authentication QuickPlace extension is consistent with the QuickPlace model, which provides three levels of security or roles: reader, author, and manager. There exists a member directory for each place. What this means is that each place has its own set of members that visit it. The Domino server is modified to perform local authentication against that directory, making places very portable, self-contained. And they don't collide with other members in other places. A user, having control of his own place member directory, set his own security for access to that directory. [Page 59, line 15 to page 60, line 1. Emphasis added.]

"...a collaborative environment to be set up without administrative support, that is by members of the team itself, using a familiar and easy to use

browser user interface. Members of the team, acting with manager or author authority, and using such a browser interface without involving administrative or application development support, need to be able to set up a folder or room for each project element..." [Specification, page 5, lines 7-15. Emphasis added.]

"A room is created from a default room type template, PageLibrary.ntf, which provides indexing infrastructure for maintaining the pages in a room, and also security and authentication features so that access to a room can be limited to a subset of team members." [Specification, page 55, line 16 ff. Emphasis added.]

Applicants contend that nowhere does Salas, Maurille, or Cutler teach that membership in an access control list control on a specific subroom in collaboration space is limited to members included in the access control list for the collaboration space. Thus, the reference to Col. 13, lines 31-34 of Salas states:

"...each object may be provided with a field or fields which identify users that may open, view, and edit the object."

"Users" is not limited, apparently, to "members", as the latter may be identified for the place as distinguished from objects within the place. As noted above, Cutler does not

provide this missing element from Salas.

Applicants invention provides a double linked list for linking rooms together in collaboration space, with access control list control on rooms and access control list control on forward pointers, or child pointers, to child rooms.

This structure is illustrated in Figures 10 and 11 of applicants' specification, which are described as follows:

> Referring to Figure 10, QuickPlace rooms 201-204 and 210 are connected by forward and backward pointers 205-209 and 211, and these enable the security of each room to be independently managed. Each room has its own security; that is, the identity of each user allowed to enter the room and that users security level: the three levels being reader, author, manager. This is held in an access control list which is a part of each room. While an individual, say Steve, has reader access (R) to the library 204, he can have author (A) access to a subroom 211. This enables a subroom 211 to have increased/ maintained, or decreased access authority for a particular individual with respect to its parent room 204. Only individuals with access to a parent 204 can access a subroom 210, but that subroom 210 can have changed access for the subroom 210 for these individuals. Previously, security could not be increased in subrooms 210 with

respect to a parent room 204.

A database access control list (ACL) specifies who can or cannot access the database. For users who can access a database, access levels and roles determine the specific actions they can perform -- for example, creating or deleting documents. Document access fields (Readers and Authors fields), in conjunction with the database ACL, control who can read or modify specific documents. Thus, to limit access to specific documents created from a form, a readers field is included. A readers field explicitly lists the users who can read documents created from the form. If a form has an access list, names from the readers field are added to the form access list. Otherwise, the readers field controls access to documents created from the form. Entries in a readers field cannot give a user more access than what is specified in the database access control list (ACL); they can only further restrict access. An authors field works in conjunction with author access in the database ACL. Listing users in an authors field expands access rights by allowing listed users to edit documents they create. Entries in an authors field cannot override the database access control list; they can only refine it. Authors fields affect only users who have author access to the database.

Referring to Figure 11, forward pointers 205, 209

are secure. Security, in this context provides that forward pointer 205 to project A 203 carries the same security as that of project A 203, and anyone viewing main room 201 who is not entitled to access project A 203 will not see room 203 listed in parent room. QuickPlace does not show a user things or objects to which the user does not have access. In past, such objects were shown, but were greyed out or otherwise managed so that user access was inhibited. Forward pointers, therefore, include room name field 212, address to database name field 213, and readers field 214, which includes a table of user identifiers 215 for each user permitted to access the room, with corresponding access authority 216 for each such user, which may be manager, author, or reader. [Applicants' specification, pages 48-50.]

None of the references cited, taken individually or in any combination, teaches this structure of a double linked list for linking rooms together in rooms (places) in collaboration space with ACL security on each room (place in collaboration space) and ACL security (readers fields) on forward pointers in the double linked list.

The Examiner refers (Office Action, page 8) to Salas col. 13, lines 32-34 and col. 14, lines 37-39 as teaching a "readers field for providing access control list control on said forward pointer." [Office Action, page 3.] Applicants traverse. This is what Salas teaches:

"For example, each object may be provided with a field or fields which identify users that may open, view, and edit the object." [Salas, Col 13, lines 32-34.]

"Since every file and eRoom item is represented as an object in the database, access of users to each item can be controlled by entries in the database schema. For example, every eRoom may be represented by a table which has as one or more of its fields, a list of members that are entitled to enter the eRoom." [Salas, Col. 14, lines 37-42.]

Applicants assert that there is no teaching here of an access control list, or readers field, on a specific forward pointer from a parent room to a child room, which ACL or readers field is distinct from the ACL for either the parent or child room.

Applicants structure of access control elements provides a readers field as part of the pointer which is distinct from the ACL on either the parent or the child room, and is an ACL control on the pointer itself used to specify whether a pointer to a child room (place) is enabled in its parent room (place).

Cutler teaches access control on objects generically, but does not teach using such on forward pointers between rooms in collaboration space, as previously stated.

The Examiner refers to Maurille as teaching forward pointers identifying a child room, but is silent as to the existence of an ACL control on that pointer [Maurille, Col. 6, lines 44-57]. However, applicants note, Maurille has no teaching of "room" entities, and only refers to a data schema including users, not rooms in collaboration space.

Thus, neither Salas nor Maurille nor Cutler disclose or teach this aspect of the claims. That is, applicant argues, the combination of Cutler, Salas and Maurille does not teach ACL control specific to forward pointers in the hierarchical structure of rooms in collaboration space in addition to ACL control on the parent and child rooms within that space.

That Salas does not teach a double linked list with ACL security on forward pointers in addition to ACL security on the rooms is apparent from examination of Salas Figure 1, which does not show forward and reverse pointers between rooms. In Salas, there is no teaching of forward and reverse pointers linking rooms with ACL security <u>on those forward pointers</u>, as distinguished from and in addition to security on the rooms. While Maurille may disclose forward and reverse pointers, none of Cutler, Maurille or Salas teach ACL security on the forward pointers. Cutler's generic teaching of ACL on objects in an operating system domain does not teach the specific configuration of ACL controls on rooms and pointers within a collaboration space domain.

Maurille is cited by the Examiner as teaching databases and pointers linking them, and Applicants agree that such is taught. Cutler is cited by the Examiner as teaching access control lists, and Applicants agree that such is taught. Applicants do not claim they invented forward and reverse pointers between objects in a hierarchy, nor are they claiming they invented access control lists. Rather, Applicants invented a hierarchy of rooms to create a collaboration space with a specific protocol of access control lists, including ACL lists on rooms and additional ACL control specifically on forward pointers used for management of security of rooms within that collaboration space. Neither Maurille, Cutler, nor Salas, taken separately or in combination, teach that protocol.

Rejection of Claims 1 and 2 Under 35 U.S.C. 103

The discussion above of claims 3-7, 9, 13 and 15, applies equally to claim 1.

The primary distinction in claim 1 with respect to the claims previously discussed is the provision for "a document readers field for a document containing data in said subroom being a members object for identifying a subset of members of said place authorized to access a subroom who are also authorized to access said document," as is described at page 49, lines 1-18 of the specification.

The Examiner cites Salas, col. 13, lines 32-34. Applicant concurs. Consequently, claims 1 and 2 will stand with claims 3-7, 9, 13, and 15 on the distinctions previously discussed.

Rejection of Claim 10 Under 35 U.S.C. 103

Claim 10 varies from the claims previously discussed in that it is directed to the creation of a child room. This includes initially providing in a readers access field (195) for a child room created from a form those users identified in a form access list identifying users authorized to read rooms (such as 202) created from that form (page 49, lines 3-9); and limiting reader access in the readers access field (195, for subroom 210) to the child room (210) for a specific user to no more than the access granted that specific user in the first access control list (195, for main room 201) (page 49, lines 9-12).

On this point, the Examiner refers (Office Action, page 21) to Salas, col. 13, lines 32-34 and col. 14, lines 37-39, quoted above.

Applicant argues that there is no teaching in these references to Salas, or elsewhere in any of the references, of the feature here being claimed. That is, creating a room from a form, which form has an associated form access list identifying those users authorized to access a room created

from that form, in combination with the other limitation of the claims including, specifically, the readers field on forward pointers linking to and from the room created from that form, as previously discussed.

Rejection of Claim 3 Under 35 U.S.C. 103

Claim 3 varies from claims 9, 13, and 15 by not specifically reciting the displaying of a parent room, which limitation is included in its dependent claim 7, and by a more precise rendition that the ACL on a child room can only included users identified as authorized to enter the root place.

The most relevant distinctions in claim 3 with respect to the Salas, Maurille, and Cutler references are those previously discussed with respect to claims 9, 13, and 15, so claim 3 and its dependent claims 4-7 stand with them.

Request

Applicant requests that the Board reverse the decision of the Examiner to reject claims 1-7, 9-10, 13, 15.

(10) CLAIMS APPENDIX

1. A collaboration space created as a web site by a user at a browser including a plurality of rooms in a hierarchical structure with access control list control on rooms and access control list control on forward pointers to child rooms, comprising:

said web site including a place comprising a plurality of subrooms, each subroom being an independent entity belonging to said place,

said place having a first data note including a directory of members of said place and

each subroom within said place having a data note associated therewith containing an access control list of members selected exclusively from said directory of members by a member of said place having manager authority with respect to said subroom for specifying users of said place authorized to access said subroom;

forward and reverse pointers for linking said subrooms, each said forward pointer to a child room including indicia identifying said child room, indicia specifying the address location of the entity forming said child

room, and a readers field for providing access control list control on said forward pointer;

said readers field being a members object for identifying those members of said subset of members of said place authorized to access a parent subroom that are also authorized to access a child subroom and for each member of said subset of members a level of authorization;

a document readers field for a document containing data in said subroom being a members object for identifying a subset of members of said place authorized to access a subroom who are also authorized to access said document; and

said collaboration space comprising a hierarchy of rooms, each room being a place in collaboration space including said directory of members; said directory of members, said access control list of members, and said readers field selectively providing increased, decreased, and maintained access to a child place in collaboration space, with access at any level of authority to a child place enabled only for those authorized to access a corresponding parent place, and whether a link to a child place will be enabled for a specific user in its corresponding parent place.

2. The collaboration space of claim 1, said levels of

authorization including manager, author, and reader.

3. A collaboration space created as a web site by a user at a browser, comprising:

a place comprising a plurality of rooms in a hierarchical structure linked by forward and backward pointers;

a member directory for said place identifying users authorized to enter said place;

each said room comprising one or more pages, and for each said room a members object for identifying a subset of members of said place authorized to access said room and for each member a level of authorization, each member of said subset of members being a user authorized in said member directory to enter said place;

said rooms including a parent room and a child room, and said pointers comprising forward and backward pointers for enabling the security of each said room to be independently managed, said forward pointers including indicia identifying said child room, indicia specifying the address location of the database forming said child room, and a readers field for providing access control list control on said forward pointer, said readers field for identifying those members of

said subset of members of said place authorized to access a parent room that are also authorized to access a child room; and

said collaboration space comprising a hierarchy of rooms, each room being a place in collaboration space including a member directory; said member directory, said members object, and said readers field selectively providing increased, decreased, and maintained access to a child place in collaboration space, with access at any level of authority to a child place enabled only for those authorized to access a corresponding parent place, and whether a link to a child place will be enabled for a specific user in its corresponding parent place.

4. The collaboration space of claim 3, said readers field including an access authority for each reader authorized to enter said room selectively as manager, author or manager.

5. The collaboration space of claim 3, each said forward pointer being a secure pointer by carrying the same level of security as the child room to which it points.

6. The collaboration space of claim 5, each said forward pointer carrying in said readers field the same security as that of the subroom to which it points.

7. The collaboration space of claim 6, further comprising a display for presenting to a specific user viewing a parent room a listing of its subrooms, said listing including for said specific user only those subrooms for which said readers field in said forward pointer includes an entry authorizing access by said specific user.

8. [Canceled]

9. A method for controlling access to rooms within a collaboration place created as a web site by a user at a browser, comprising the steps of:

maintaining for said collaboration place an access control list identifying those users authorized to enter said place;

providing forward and reverse pointers linking said rooms in a hierarchical structure within said place, said forward pointers including indicia identifying a child room, indicia specifying the address location of the database forming said child room, and a readers field for providing access control list control on said forward pointer, said readers field exclusively specifying a subset of said users authorized to enter said place;

displaying a parent room to a specific user, said parent room including a list of children rooms for which said readers fields on said forward pointers authorize said specific user access; and

said collaboration space comprising a hierarchy of rooms, each room being a place in collaboration space including an access control list; said access control list and said readers field on forward links from a parent place to a child place selectively providing increased, decreased, and maintained access to said child place in collaboration space, with access at any level of authority to said child place enabled only for those authorized to access a corresponding parent place, and whether a link to a child place will be enabled for a specific user in its corresponding parent place.

10. A method for creating a child room within a collaboration place data base created as a web site by a user at a browser, comprising the steps of:

providing for said collaboration place data base a first access control list identifying users authorized to access said data base;

providing for said child room a back pointer to a parent room; and

providing at said parent room for said child room a forward pointer from said parent room to said child room, said pointer including indicia identifying said child room, indicia specifying the address location of the database forming said child room, and a readers access field listing a subset of users in said first access control list who are users authorized to access said child room for providing a second access control list specific to said forward pointer;

initially including in said readers access field for a child room created from a form users identified in a form access list identifying users authorized to read rooms created from said form;

limiting reader access in said readers access field to said child room for a specific user to no more than the access granted said specific user in said first access control list; and

said collaboration space comprising a hierarchy of rooms, each room being a place in collaboration space including an access control list; said access control list and said readers access field on forward links from a parent place to a child place selectively providing increased, decreased, and maintained access to said child place in collaboration space, with access at any level of authority to said child place enabled only for those authorized to access a corresponding

parent place, and whether a link to a child place will be enabled for a specific user in its corresponding parent place.

11. [Canceled]

12. [Canceled]

13. A program storage device readable by a machine, tangibly embodying a program of instructions executable by a machine to perform method steps for controlling access to rooms within a collaboration place created as a web site by a user at a browser, said method steps comprising:

maintaining for said collaboration place a first access control list identifying those users authorized to enter said place;

providing forward and reverse pointers linking said rooms within said place, said forward pointers including indicia identifying a child room, indicia specifying the address location of the database forming said child room, and a second access control list including a readers field specifying each user having manager, author, and reader access to said child room, said readers field exclusively specifying a subset of said users authorized to enter said place; [[and]]

displaying a parent room to a specific user, said

parent room including a list of children rooms for which said readers fields on said forward pointers authorize said specific user access; and

said collaboration space comprising a hierarchy of rooms, each room being a place in collaboration space including an access control list; said first access control list, and second access control lists on forward links from a parent place to a child place, selectively providing increased, decreased, and maintained access to said child place in collaboration space, with access at any level of authority to said child place enabled only for those authorized to access a corresponding parent place, and whether a link to a child place will be enabled for a specific user in its corresponding parent place.

14. [Canceled]

15. A computer program product for controlling access to rooms within a collaboration place created as a web site by a user at a browser, comprising:

a computer readable medium;

first program instructions for maintaining for said collaboration a first access control list identifying

those users authorized to enter said place;

second program instructions for providing in a parent room second access control list identifying a subset of those user authorized to enter said place who are also authorized to enter said parent room with manager, author, or user access;

third program instructions for providing forward and reverse pointers linking said parent room with a child room in a double-linked list within said place, said forward pointers having a readers field providing a third access control list on said forward pointer, said third access control list providing access to said child room for those members who are included in said second access control list who are also authorized to access said child room;

fourth program instructions for displaying a parent room to a specific user, said parent room including on said forward pointers a list of children rooms for which said readers fields authorize said specific user access;

fifth program instructions establishing said collaboration space as comprising a hierarchy of rooms, each room being a place in collaboration space including an access control list; said first access control list, said second access control list, and said

third access control list selectively providing increased, decreased, and maintained access to said child place in collaboration space, with access at any level of authority to said child place enabled only for those authorized to access a corresponding parent place, and whether a link to a child place will be enabled for a specific user in its corresponding parent place; and wherein

said first, second, third, fourth, and fifth program instructions are recorded on said computer readable medium.

(11) EVIDENCE APPENDIX

None. (Apparently the declaration submitted 8 Jul 2006 has not been entered by the Examiner.)

(12) RELATED PROCEEDINGS APPENDIX

None.

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